

Roundup Pro Biactive Product Guide

ROUNDUP PRO BIACTIVE

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	FOR USE ONLY AS A HORTICULTURAL/INDUSTRIAL/ FORESTRY/ AQUATIC HERBICIDE
	MAFF NO 06941
	The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work
	A soluble concentrate containing 360 g/l glyphosate, present as 480 g/l (41.1% w/w) of the isopropylamine salt of glyphosate.
	Pack size 1 and 5 litres

**IN CASE OF EMERGENCY DAY OR NIGHT, TELEPHONE:
National Chemical Emergency Centre (01865) 407333**

COSHH

WARNING

TAKE EXTREME CARE TO AVOID DRIFT

DO NOT MIX, STORE OR APPLY ROUNDUP PRO BIACTIVE IN GALVANISED OR UNLINED MILD STEEL CONTAINERS OR SPRAY TANKS.

DO NOT leave spray mixtures in tank for long periods and make sure tanks are WELL VENTILATED.

STATUTORY CONDITIONS RELATING TO USE

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

USE SITUATIONS	MAXIMUM INDIVIDUAL DOSE (PRODUCT)
Land not intended for cropping	5 litres/hectare
Aquatic Weed Control	6 litres/hectare
Forest :Weed Control	10 litres/hectare
:Stump Application	20% solution of product in water (200ml/litre)
:Chemical thinning	2 ml per 10cm diameter of tree

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment. See PRECAUTIONS (marked*).

However, engineering controls may replace personal protective clothing if a COSHH assessment shows they provide an equal or higher standard of protection.

Environmental Protection

Users must consult the appropriate water regulatory body (Environment Agency/Scottish Environmental Protection Agency) before using the product near water and must obtain their agreement before using this product to control aquatic weeds.

READ ALL PRECAUTIONS BEFORE USE (MAFF 06954).

PRECAUTIONS

*WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate.

*WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when using hand-held rotary atomisers, weed wipers, a spot gun or when making cut stump applications.

*WEAR SUITABLE PROTECTIVE CLOTHING (COVERALL), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION (FACESHIELD) when using the stem injection technique.

*WEAR SUITABLE PROTECTIVE CLOTHING (COVERALL), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION (FACESHIELD WITH DISPOSABLE FILTERING FACEPIECE) when using mistblowers and making "drift" applications.

DO NOT CONTAMINATE surface waters or ditches with chemical or used container.

WASH HANDS AND EXPOSED SKIN before meals and after work.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

KEEP OUT OF REACH OF CHILDREN.

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

RINSE OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.

DIRECTIONS FOR USE

Area of Use

ROUNDUP® PRO BIACTIVE™ is recommended for control of annual and perennial grasses and broad-leaved weeds in non-crop areas such as roadsides, paths, hard surfaces and along fences and walls. It is recommended for cleaning up weedy ground prior to planting or sowing, for total weed control on industrial sites and for aquatic weed control.

ROUNDUP® PRO BIACTIVE™ may also be used as a directed spray in ornamental plantings.

ROUNDUP® PRO BIACTIVE™ is compatible with agitation with Chipman Diuron Flowable (MAFF no. 04132) and is also compatible with the adjuvant, Mixture B (Adj No. 0161).

Application Rate 5 litres/ha

Application Guidance

ROUNDUP® PRO BIACTIVE™ can be applied using hydraulic sprayers at water volumes 80-400 l/ha.

ROUNDUP® PRO BIACTIVE™ can also be applied using rotary atomisers and Weed Wipers. For details SEE SECTION Application Techniques

Subsequent Land Use

Planting of trees, shrubs, etc. may take place 7 days after application. Grass may be sown 15 days after treatment.

ROUNDUP PRO BIACTIVE - FORESTRY WEED CONTROL - RECOMMENDED USES

Roundup® Pro Biactive™ can be used for site preparation and for weed control in planted out trees.

PREPLANTING

AREA OF USE	TARGET WEEDS/ USAGE	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
Forestry - Pre-Planting	Arable land Planting Replanting & Grassland areas	Arable weeds	4.0	Hydraulic Sprayers 80-250 l/ha or Rotary Atomisers 40 l/ha	All tree species may be planted 7 days or more after treatment
		Grassland weeds	5.0		
Forestry - Post-Planting (directed) in Conifers & Broad-leaved Trees	Clean-up around Trees with Knapsack applications, Conifer release	Annual/Perennial)	4.0	Apply as a concentration of 1 part ROUNDUP® PRO BIACTIVE™ : 50 parts water (2%)	It is ESSENTIAL to use a TREE GUARD for all applications made in the growing season. Treat bracken after frond tips are unfurled but before senescence. Treat heather late August to end September. All other woody weeds are treated June- August, before leaf senescence (but after new growth of crop has hardened).
		Grasses and)			
		Broad-leaves)			
		Woody weeds :	3.0	or	
		Bracken/Beech)			
		Brush/Brambles)	Weedwiper Mini		
		Sycamore/Oak)			
Hazel/Willow/Ash)					
Heather (peat soils)	4.0				
Heather (mineral soils)	6.0				
Rhododendron*	10.0				

* For improved control of Rhododendron add Mixture B (Adj No. 0161) at a concentration of 2% final water volume to 8.0 l/ha (5.6 pts/ac) of ROUNDUP® PRO BIACTIVE™. Application using the Weedwiper is not suitable

ROUNDUP PRO BIACTIVE - OVERALL SPRAYING OF DORMANT CONIFERS - RECOMMENDED USES

AREA OF USE	TARGET WEEDS/ USAGE	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE		
- Post-Planting (overall dormant season in certain conifers)	Grass weeds - Lowland areas - Upland areas	Black Bent, Cock's-foot, Common Couch, Creeping Soft-grass, False Oat-grass, Fescues, Meadow-grasses, Other Bent species, Purple Moor-grass, Sweet Vernal-grass, Tufted Hair-grass, Wavy Hair-grass, Wood Small-reed (Bush grass) All levels of all species	1.5 2.0	Hydraulic Sprayers 200-250 l/ha or Hand-Held Equipment - See Water Volume and Spray Equipment Section	DO NOT OVERALL SPRAY trees being grown for ORNAMENTAL PURPOSES, including CHRISTMAS TREES. Species safe to spray when fully dormant and leader growth has hardened : Corsican, Lodgepole and Scots Pines, Norway Spruce, Sitka Spruce, Lawson Cypress, Western Red Cedar. Douglas Fir and Noble Fir - safe to spray when fully dormant and leader growth has hardened but NOT in spring. If overall application takes place after the optimum timing weed control may be reduced. It is advisable to spray a limited area of forest to test crop safety under local conditions before widespread overall application in subsequent years.		
	Bracken					2.0	See Caution below
	Beech & Birch Brambles					2.0 3.0	
These recommended application rates refer to Forestry usage only. Inadequate control may result if used in other areas.							

Caution: The timing of hardening of leader growth varies considerably between locations and between seasons. It may occur as early as the end of July or be delayed to October or later. To avoid damage to Lammas growth, sprays should be directed away from leaders.

ROUNDUP PRO BIACTIVE - STUMP APPLICATION AND CHEMICAL THINNING - RECOMMENDED USES

AREA OF USE	TARGET WEEDS/ USAGE	WEED INFESTATION	APPLICATION RATE L/HA	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
- Stump Application For Chemical Thinning	Deciduous Trees Coniferous Trees	All species All species	10% solution of ROUNDUP® PRO BIACTIVE™ in water 20% solution of ROUNDUP® PRO BIACTIVE™ in water		Apply the solution of ROUNDUP® PRO BIACTIVE™ at felling in association with a suitably adapted clearance saw (eg. the Enso attachment to rotary saws) or to the surface of newly cut trees as soon as possible after felling, in the period November to March/April. Do not apply in the period of active sap flow in the spring/early summer.
- Chemical Thinning by Injection of Tree Stem	Coniferous and Deciduous species		2 mls neat ROUNDUP® PRO BIACTIVE™ per cut per 10 cm diameter (or less) tree		Use a hatchet to cut one notch in trees up to 10cm diameter and apply 2 mls of the solution to each cut. Use two or three notches in trees over 10cm diameter. Do not treat in the period of active sap flow in the spring/early summer.

GENERAL INFORMATION

ROUNDUP® PRO BIACTIVE™ herbicide is an aqueous solution containing 360 g/l glyphosate. It is a herbicide which is taken up by foliage and translocated to root systems. ROUNDUP® PRO BIACTIVE™ is recommended for control of Annual and Perennial grasses and Broad-leaved weeds in non-crop areas such as roadsides, paths, hard surfaces and along fences and walls. It is recommended for cleaning up weedy ground prior to planting or sowing, for total weed control on industrial sites and for aquatic weed control. ROUNDUP® PRO BIACTIVE™ herbicide may also be used as a directed spray in ornamental plantings, and in forestry for site preparation and post planting treatments.

Weeds controlled and application timing

ROUNDUP® PRO BIACTIVE™ herbicide controls most emerged grasses and Broad-leaved weeds. It is important that all weeds are at the correct growth stage when treated, otherwise some regrowth may occur and this will need re-treatment.

Apply ROUNDUP® PRO BIACTIVE™ herbicide where there is full emergence of grasses and Broad-leaved weeds and they have ACTIVELY GROWING green leaves. All weeds should be treated before growth slows down or stops in the autumn.

Perennial grasses, including Couch	-	at least 4-5 leaves of length 10-15 cm
Perennial broad-leaved weeds	-	around flowering
Annual grasses	-	1 leaf or more
Annual Broad-leaved weeds	-	2 leaves or more

This product will not give an acceptable control of Horsetails (*Equisetum arvense*) - repeat treatment will be necessary.

Note: the effects of treatment on the long term control of perennial Broad-leaved weeds has not been investigated.

Symptoms on the weeds

Symptoms of treatment are generally first seen 7-10 days, or longer (if growth is slow), after spraying. These take the form of leaf reddening followed by yellowing and are usually quicker to appear on grasses than on broad-leaved weeds. Reaction of nettles is slow.

IMPORTANT: To obtain optimum weed control, weeds must be left undisturbed with no further treatment or cultivation for 7 days after application. Allow 2-3 weeks for symptoms to develop then re-treat any unaffected plants using spot treatments.

Effects of weather

A period without rain of at least 6 hours, and preferably 24 hours, must follow application of ROUNDUP® PRO BIACTIVE™ herbicide.

Do not spray in windy conditions as drift onto desired plants or crops could severely damage or destroy them.

Do not spray on to weeds suffering from drought, waterlogging, heat or frost, otherwise poor control may result.

AQUATIC WEED CONTROL

ROUNDUP® PRO BIACTIVE™ herbicide controls emergent and floating aquatic weeds including Common Reed, Reed Sweet-grass, Reed Canary-grass and Water-lily.

Application rates

Target Weeds	Hydraulic Sprayers Biative	Amount of Roundup Pro	Area Treated	Water Volume
Emergent weeds eg Reed, Grasses, Water Cress	Boom Sprayer	5.0 litres	1 ha	200-400 litres Optimum 250 litres
	Knapsack Sprayer	50 ml	100 m ²	2.0 to 4.0 litres
Floating Weeds eg Water-lilies	Boom Sprayer	6.0 litres	1 ha	100-200 litres
	Knapsack Sprayer	60 ml	100 m ²	4.0 litres

5.0 litres = approximately 1 gallon, 2 litres = approximately 1/2 gallon.

Treat when the weeds are actively growing with full emergence of green leaf, at flowering and before dieback. Best results are obtained from applications in the periods from mid-July to mid-August on Water-lily and mid-August to mid-September on reeds.

On reeds and grasses, leaf symptoms usually appear within 14-21 days of spraying in the early autumn. Complete foliage desiccation usually occurs 30-40 days after spraying. At this stage, the reeds can be cut and removed. During cold conditions leaf symptoms may not appear before natural dieback but no growth will occur in the season following spraying.

On Water-lilies it is preferable to use a tractor or boat-mounted sprayer. During spraying, do not exceed a pressure of 2.0 Bars (30 p.s.i.). When using a tractor mounted sprayer, do not exceed 8 kph (5 mph). With a boat-mounted sprayer, use a slow forward speed to cause minimum disturbance to the floating leaves of the weeds. The use of a boat may result in some leaves being disturbed before ROUNDUP® PRO BIACTIVE™ herbicide can be absorbed. Applications made in flowing water should be sprayed against the directions of the flow.

ROUNDUP® PRO BIACTIVE™ herbicide MAY BE USED for the control of aquatic weeds in the presence of fish if used in strict accordance with the recommendations in this section.

USERS MUST CONSULT THE APPROPRIATE ENVIRONMENT AGENCY REGIONAL OFFICE OR SCOTTISH ENVIRONMENTAL PROTECTION AGENCY BEFORE APPLYING ROUNDUP® PRO BIACTIVE™ HERBICIDE IN RESERVOIRS, WATER COURSES AND WATERWAYS

APPLICATION ADJACENT TO RESERVOIRS AND WATER COURSES

Recommendations apply only to the use of this herbicide for the control of weeds growing in or by water and must be read in conjunction with the Official Codes of Practice entitled "Guidelines for the Use of Herbicides on Weeds in or near Watercourses and Lakes" obtainable from the Ministry of Agriculture, Fisheries and Food, Scottish Office Agriculture and Fisheries Department, Department of Agriculture for Northern Ireland and the Welsh Office Agricultural Department.

The Water Act, 1989, The Northern Ireland Water Act 1972 and the Control of Pollution Act 1974, may apply to the act of apply ROUNDUP® PRO BIACTIVE™ for the control of weeds growing in or by reservoirs and water courses, eg rivers, streams, ditches, drains and ponds/lakes discharging into such water courses.

Users must consult the appropriate Environment Agency Regional Office before applying ROUNDUP® PRO BIACTIVE™ for this purpose.

APPLICATION TECHNIQUES

1. CONVENTIONAL HYDRAULIC SPRAYERS

Knapsack sprayers and tractor mounted or powered sprayers may be used. These should be capable of applying accurately 80-400 l/ha within a pressure range of 1.5-2.5 bars (20-35 psi). Avoid high water volumes which may lead to run-off from the treated vegetation, resulting in reduced control.

Nozzles producing a medium or coarse spray (BCPC definition) should be used to minimise the risk of drift : Below are examples of suitable nozzles :

Medium Volume Application (2-2.5% solution or 200-250 l/ha)

Knapsack	Lurmark AN2, AN 4.0, Cooper Pegler Deflector tips yellow, green, blue or red
Tractor	Lurmark 04-F110 - 08F110, TeeJet® 11004 -11008, DG11004, DG11005, Sprays International 110-SF-04

Low Volume Application (5-6% solution or 80 -100l/ha)

Knapsack	Cooper Pegler VLV DT1.5, Lurmark AN 1.5, Sprays International DEF-015
Tractor	Lurmark Lo-Drift, TeeJet® DG, XR, TT-110015, Sprays International 110-UF02

Very low volume application (7 - 14 % solution or 35-70 l/ha)

When knapsack spraying reducing water volumes down to 35l/ha will speed operation. Cooper Pegler VLV DT0.5, DT0.75, DT1.0, Sprays International DEF-01 , DEF-015, Lurmark DT0.5, DT0.75, DT1.0

Knapsack Coverage:

Spraying with 5l/ha Roundup® Pro Biactive™ at 1m/sec walking speed		
Standard nozzles (200l/ha)	Low volume nozzles (100l/ha)	VLV nozzles (50l/ha)
250 ml in 10 litres water covers 500 sq m	500 ml in 10 litres water covers 1000 sq m	1000ml in 10 litres water covers 2000 sq m

Filling the Sprayer

Knapsack	Stir the correct amount of ROUNDUP® PRO BIACTIVE™ into at least 2 litres of clean water in a plastic bucket. Add this solution to a half filled sprayer and top up with water.
Tractor Mounted	To avoid foaming do not use top tank agitation. Half fill the spray tank with clean water, start gentle agitation, then add the correct amount of ROUNDUP® PRO BIACTIVE™. Top up the tank with water to the required level. Use of a defoamer may be necessary.

2. ROTARY ATOMISERS

When rotary atomisers are used to apply ROUNDUP® PRO BIACTIVE™ ensure that the droplet diameter falls within the range 200-300 microns for all uses.

- Hand-held machines can be used to apply a spray volume of 10-20 l/ha, eg. Herbi and Herbaflex.
- The Ulva forest tractor-mounted boom sprayer is suitable for use in forest situations to apply a spray volume of 40 l/ha.
- Rotary atomisers may be used for the control of aquatic weeds, the water volume must be 10-20 litres.

Filling the sprayer bottle - hand-held machines

Stir the correct amount of ROUNDUP® PRO BIACTIVE™ into the sprayer bottle half filled with clean water. Top up with water, close the top and shake gently to ensure good mixing.

3. OVERALL, NON-SELECTIVE APPLICATIONS

Ulva and Mistblower

These applicators are recommended for use in FORESTRY areas ONLY. The principle of application is to drift the herbicide onto target weeds taking care to avoid contact between this product and all desired species.

Apply in a total volume of spray liquid at 10-20 l/ha in the Ulva and 90-175 l/ha in the Mistblower using the correct dose of ROUNDUP® PRO BIACTIVE™ herbicide to control the particular target species.

4. HAND-HELD WIPERS

ROUNDUP® PRO BIACTIVE™ may be applied through the Weedwiper Mini. Use a concentration of 1 part ROUNDUP® PRO BIACTIVE™ to 2 parts of water (a 1:2 ratio) and add a scarlet dye if required. Care should be taken to avoid dripping onto wanted vegetation.

The dye may be obtained from Hortichem Ltd, tel (01980) 676500.

5. CUT STUMP APPLICATION

Enso attachment to rotary saws

This technique is specific to scrub clearance in Forestry. The water soluble dye Methyl Violet Gurr may be added to ROUNDUP® PRO BIACTIVE™ at a concentration of 0.01% to help identify treated stumps. This is equivalent to the addition of 1 ml of dye to 10 litres of spray liquid. The dye may be obtained from : Merck Ltd, customer Service Centre, Hunter Boulevard, Magna Park, Lutterworth, Leicestershire, LE17 4AX tel 0800 223344 - contact their Technical Department. Also available are a scarlet dye from Hortichem, or Aventis Cropscience UK Ltd.

Calibration

All sprayers should always be calibrated before use. This is essential when nozzles are changed or if a different dose of product is to be applied.

Sprayer maintenance

Ensure the sprayer is in good working order and replace damaged, worn or malfunctioning parts before use. Carry out maintenance according to the instructions of the sprayer manufacturer.

Sprayer hygiene

It is essential to thoroughly clean-out spray tanks, pumps and pipelines and nozzle or disc assemblies, with a recommended detergent cleaner, between applying this product and other pesticides to avoid contamination from pesticide residues.

Caution

1. Always wash out the sprayer thoroughly before and after use.
2. Do not mix or apply in galvanised or mild steel containers, such as old steel drums or galvanised watering cans.

Monsanto Agricultural Sector, Maris Lane, Trumpington, Cambridge CB2 2LQ.
Tel: 01223 849200

Hotline/Technical Enquiries - 01223 849540
email: technical.helpline.uk@monsanto.com

Always read the label. Use pesticides safely.
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CONTAINER DISPOSAL

A) AVADDEX BW 480

Triple rinse empty containers. Pour rinse water in spray tank. Puncture and flatten containers and dispose of via the Local Authority or a waste disposal contractor. Failing this, bury them at least 80cm (30ins) deep, away from ponds, watercourses and boreholes. Consult Part 5 of the MAFF and HSE Pesticides Code of Practice. For the Use of Pesticides on Farms and Holdings.

B) AVADDEX EXCEL 15G, RAMROD GRANULAR, ROUNDUP BIACTIVE DRY

Dispose of empty containers via the Local Authority or a waste disposal contractor. Failing this, burn empty containers at HIGH TEMPERATURES but avoid the smoke contaminating yourself or other property. Consult Part 5 of the MAFF and HSE Pesticides Code of Practice. For the Use of Pesticides on Farms and Holdings.

C) RAMROD FLOWABLE, ROUNDUP BIACTIVE, STING ECO

Triple rinse empty containers. Pour rinse water in spray tank. Dispose of containers via the Local Authority or waste disposal contractor. Failing this, burn empty containers at HIGH TEMPERATURES but avoid the smoke contaminating yourself or other property. Consult Part 5 of the MAFF and HSE Pesticides Code of Practice. For the Use of Pesticides on Farms and Holdings.

**METRIC CONVERSIONS
IMPERIAL TO METRIC**

Length

inches	x 2.54	=	centimetres (cm)
feet	x 0.305	=	metres (m)
yards	x 0.914	=	metres (m)
miles	x 1.61	=	kilometres (km)

1 kilometre = 1000 metres

Area

sq. inch	x 6.45	=	sq. cm (cm ²)
sq. feet	x 0.093	=	sq. metre (m ²)
sq. yards	x 0.836	=	sq. metre (m ²)
acre	x 0.405	=	hectare (ha)

1 hectare = 10,000 sq. metres

Volume

fluid ounces	x 28.4	=	millilitres (ml)
pints	x 0.568	=	litres (l)
gallons	x 4.55	=	litres (l)

20 fluid ounces (fl oz) = 1 pint

1 litres = 1000 millilitres

Weight

ounce	x 28.3	=	grams (g)
pounds	x 0.454	=	kilograms (kg)
hundredweight	x 50.8	=	kilograms (kg)
tons	x 1.02	=	tonnes (t)

1 kilogram = 1000 grams

1 tonne = 1000 kilograms

Pressure

psi = 0.069004 x bar

Speed

mph x 1.61 = kph

Temperature

°F to °C (°F-32) x ⁵/₉

Doses Volume Area

fl/oz acre	x 0.070	=	1 hectare
pints/acre	x 1.404	=	1 hectare
gals/acre	x 11.23	=	1 hectare

Weight Area

lbs/acre	x 1.12	=	kg/hectare
cwts/acre	x 126	=	kg/hectare
cwts/acre	x 0.126	=	tonnes/hectare

METRIC CONVERSIONS
METRIC TO IMPERIAL

Length

centimetres	x 0.394	=	inches (ins)
metres	x 3.28	=	feet (ft)
metres	x 1.09	=	yards (yd)
kilometres	x 0.62	=	miles

1 kilometre = 1000 metres

Area

sq. cm	x 0.155	=	sq. inch (in ²)
sq. metre	x 10.8	=	sq. feet (ft ²)
sq. metre	x 1.20	=	sq. yards (yd ²)
hectare	x 2.47	=	acre

1 hectare = 10,000 sq. metres

Volume

millilitres	x 0.035	=	fluid ounces (fl oz)
litres	x 1.76	=	pints (pts)
litres	x 0.22	=	gallons (gals)

20 fluid ounces (fl oz) = 1 pint

1 litres = 1000 millilitres

Weight

grams	x 0.035	=	ounces (oz)
kilograms	x 2.2	=	pounds (lb)
kilograms	x 0.02	=	hundredweight (cwt)
tonnes	x 0.984	=	tons

1 kilogram = 1000 grams

1 tonne = 1000 kilograms

Pressure

bar x 14.5 = psi

Speed

kph x 0.62 = mph

Temperature

°C to °F °C x ⁹/₅ + 32

Doses Volume Area

1 hectare	x 14.244	=	fl/oz acre
1 hectare	x 0.712	=	pints acre
1 hectare	x 0.089	=	gals/acre

Weight Area

kg/hectare	x 0.892	=	lbs/acre
kg/hectare	x 0.00797	=	cwt/acre
tonnes/hectare	x 7.96	=	cwt/acre

METRIC CONVERSIONS

<i>Product Dose</i>	<i>l/ha</i>	<i>pints/ac</i>
	1.5	1.1
	2.0	1.4
	3.0	2.1
	4.0	2.8
	5.0	3.5
	6.0	4.2
	10.0	7.0

<i>Application Volume</i>	<i>l/ha</i>	<i>gals/ac</i>
	10	1.0
	20	1.75
	40	3.5
	80	7.0
	90	8.0
	100	9.0
	120	10.5
	150	13.5
	175	15.5
	200	18.0
	225	20.0
	250	22.0
	300	27.0
	400	36.0

<i>Tractor Speed</i>	<i>kph</i>	<i>mph</i>
	4.0	2.5
	5.0	3.0
	6.0	3.75
	8.0	5.0
	9.0	5.5
	10.0	6.25

<i>Spray Pressures</i>	<i>bars</i>	<i>psi</i>
	1.5	21
	2.0	28
	2.5	35
	3.0	42

Conditions of Sale

The following shall form part of any contract of sale of this product whether sold by the manufacturer or a subsequent owner ("The Seller").

1. The Seller warrants that the product complies with the product specification prevailing at the date of sale which is obtainable from the Seller on request provided that (except to the extent any claim is in respect of personal injury or death) the said Seller's liability, for breach of this warranty is limited to the price of the products involved in the breach.
2. Except as aforesaid all conditions and warranties statutory or otherwise and express or implied as to the quality of the product or its fitness for any purpose are expressly excluded.
3. Except as aforesaid neither Monsanto nor (where different) the Seller shall be under any liability other than for personal injury or death whether in contract or in tort for any loss or damage arising out of or resulting from the use of the product.
4. Monsanto shall in no event be liable for any loss or damage caused by the failure of any person to use the product in accordance with the instructions for use given by Monsanto.

Monsanto Agricultural Sector, Maris Lane, Trumpington, Cambridge CB2 2LQ.

Tel: 01223 849200

Hotline/Technical Enquiries - 01223 849540

email: technical.helpline.uk@monsanto.com

Always read the label. Use pesticides safely.

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